



# Business Plan 2020–21



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## 1. Introduction

Armagh Observatory and Planetarium's (AOP) Corporate Plan 2018-21 was developed in line with the objectives of the Northern Ireland Executive's draft Programme for Government (PfG) 2016-2021. The Plan sets out a three-year strategy to achieve stability for the organisation and provide a firm foundation for the future, upon which a greater ambition can be realised. AOP's Corporate Plan consists of four pillars: Research, Education and Community Outreach, History and Heritage, and Leadership and Governance.

The long-term vision is to provide facilities that will secure the future of its international frontline scientific research as well as excelling in the delivery of public outreach and education and enabling AOP to take advantage of future opportunities for growth and innovation.

With the support of the Department for Communities (DfC) and the Strategic Investment Board, AOP has completed a Strategic Outline Case (SOC) to set out a high-level project concept and options for the future of the whole site. The SOC was approved in January 2019, which demonstrated a confidence and optimism for the future of AOP and its contribution both locally, nationally and internationally to research and public outreach in science. Throughout 2019-20 work has been undertaken in order to prepare for the commencement of the development an Outline Business Case (OBC) which will identify and provide details on all options.

AOP has already successfully accomplished much of the Corporate Plan 2018-21, while also developing new or refined initiatives as a result of pursuing some of the objectives. This Business Plan for 2020-21 sets out AOP's objectives to deliver Year 3 of the AOP Corporate Plan, with new and more ambitious objectives added. While it continues with the four pillars, a focus on the long term future of AOP is reflected in a new overarching strand to develop and obtain approval of an OBC to realise AOP's future vision.

## 2. Progress in 2019-20

Much progress was made in 2019-20 across all four of AOP's strategic pillars. Some highlights include:

### Research

- Award of a "new applicant" research grant by the Science and Technology Facilities Council (STFC) to provide a new postdoctoral fellow for a new research programme investigating the evolution of galaxies.
- Approval for a new AOP research postdoctoral fellowship – the Öpik Fellowship, named after Ernst Öpik, the world-renowned Armagh astronomer. An offer was made and accepted and the fellow is expected to start in August 2020. 3 students successfully completing their PhD and commencement of 4 new PhD students.
- Hosting the annual meetings of the professional astronomical community on the island of Ireland (INAM – the Irish National Astronomy Meeting) and the amateur community from Britain (the BAA – British Astronomical Association).

## Education and Outreach

A very successful year at the Planetarium resulting in visitor number and income targets being exceeded. Highlights include:

- Events to remember the 50<sup>th</sup> anniversary of the fall of the Bovedy meteorite in NI.
- An extensive events programme which included a summer programme centred around the 50<sup>th</sup> anniversary of the Apollo 11 Moon landing (“One Giant Leap”), and a new astronomy focused Mission Santa Christmas programme.
- Introduction of a set of new Augmented Reality exhibitions in the Planetarium and Astropark, funded by Tourism NI.
- The biennial Robinson lecture, delivered by Professor Monica Grady.
- Expanded education programme from pre-school to post-graduate level.
- Upgrade of planetarium facilities to improve visitor experience, including a new projector system in the planetarium dome.

## History and Heritage

- A new visitor tours programme was introduced featuring the Astropark and the Observatory, making the rich scientific heritage of Armagh Observatory accessible to the public along with providing an introduction to the new astronomical Augmented Reality (AR) project.
- Progress has been made towards making an application for Museum Accreditation and in cataloguing AOP’s extensive collection of scientific archives so they may be made publicly available and accessible by scholars.
- A conservation management plan has been developed for the Observatory building and engagement with CPD to address urgent remedial actions within agreed conservation principles is ongoing.

## Leadership and Governance:

- Governance arrangements are now established with satisfactory internal and external audit assessment.
- AOP has been awarded Institute of Physics Juno Practitioner status for its programmes to address gender equity.
- A new website, [www.armagh.space](http://www.armagh.space), has been established, bringing together all of AOP’s activities in one place and also incorporating AOP’s popular Astronotes blog.
- AOP delivered an approx. £1.4m Capital programme.

## **Sponsor Department Resource Grant-in-Aid Budget 2019-20**

	Resource	Capital
Opening budget	£1,729,000	£880,000
In Year Funding	£367,500	£531,000
Total budget	£2,097,500	£1,411,000

### 3. Key Performance Indicators 2020-21

	KPI	Target by 31 March 2021		
1	Number of articles published in refereed scientific journals. Level of research outputs from externally validated review (every 3 years) <b>postponed until 2021/22</b>	50 articles  <b>60% of outputs to be considered internationally excellent or world leading in terms of originality, significance and rigour. Cannot be measured without validated review</b>		
2	Increase research collaborations and partnerships	2 new partnerships created		
3	<del>Increase education and non-education visitor numbers by 10% across each segment.</del> Non educational numbers reduced to approx 25% of baseline + winter lights show Educational numbers reduced by 90% to reflect post-covid environment but mitigated by new KPIs	Segment	Baseline	Target
		Overall	52,716	<del>57,987</del> 10,000
		Non-Educational	40,930	<del>45,023</del> 9,500
		Educational Total	11,786	<del>12,964</del> 500
		Nursery	21 nurseries	<del>23 nurseries</del>
		Primary	192 schools	<del>211 schools</del>
		Post primary	52 schools	<del>57 schools</del>
4	Increase income from commercial activity (admissions, facility hire, shop and café sales) by 10% on 2019/20 target <b>income reduced to reflect closure April – September, reduced capacity October – March, mitigated by income from Winter Lights show</b>	£296,000		<del>£326,000</del> £107,000
5	<del>Create new partnerships for third level and adult learning</del> <b>education focus is return to learning – defer to 2021/22</b>	One new programme implemented		
6 NEW	<del>Deliver an outreach programme to target hard to reach/deprived schools and increase awareness and promotional activity</del> <b>See new KPI with revised focus</b>	10 school outreach events  4 promotional outreach events		
7	Increase tours promoting AOP wider assets (Astropark, Observatory) (2019/20 KPI 30)	60 tours of Astropark/Observatory <b>New KPI – Winter Lights Show</b>		
8	<del>Complete an OBC to support future development vision</del> <b>defer to 2021/22</b>	Submit an OBC for consideration by DfC by <b>31.03.21</b>		



Corporate Plan Pillar: Education and Outreach

Purpose: Ensure continuous development of programmes around the four pillars of Education, Inspiration, Entertainment and Outreach			
Outcome Delivery Plan Contribution	2020-21 Objective	Key Activities	Key Performance Indications
<p>Outcome 6: We have more people working in better jobs</p> <p><i>AOP provides education programmes from pre-school to post graduate, engendering a passion for STEM subjects from an early age.</i></p> <p>Outcome 9: We are a shared, welcoming and confident society that respects diversity</p> <p><i>AOP provides outreach programmes to support TBUC objectives</i></p> <p>Outcome 10: We have created a place where people want to live and work, to visit and invest</p> <p><i>AOP visitor numbers – 52,716 in 2019/20</i></p> <p>Outcome 12: We give our children and young people the best start in life</p> <p><i>AOP provides education programmes from pre-school to post graduate, engendering a passion for STEM subjects from an early age.</i></p>	<p>Education: By March 2021 to improve performance by 10% across each segment of its current programme</p> <p>Inspiration: By March 2021 create partnerships and develop a strategy to include funding opportunities for third level and adult learning</p> <p>Entertainment: By March 2021 to grow visitor numbers by 10% through a planned event programme</p> <p>Outreach: By March 2021 to have developed a strategy to target engagement with hard to reach communities and enhance awareness of AOP to encourage participation in its programme of activities</p>	<p>Pre School: Toddler Takeover</p> <p>Primary: revamp programme and marketing</p> <p>Secondary: GCSE, Junior Cycle (ROI) and A Level programmes</p> <p>Tertiary: Develop an Internships &amp; Summer programme</p> <p>Training of Education team in delivery of secondary level syllabi</p> <p>Engagement with education providers and council</p> <p>Special Events Programme: Winter Star Trekker evenings <del>Easter; Summer; Halloween (mid term)</del> Christmas; February Mid term Planned programme</p> <p>Increased marketing and PR support</p> <p>Identify funding opportunities</p> <p>Use of portable dome and Virtual Reality (VR) in marketing and promotion</p> <p><b>New: Science at Home programme</b> <b>Virtual Classroom</b></p>	<p><del>10% increase on baseline:</del> <del>Nursery Schools – 23</del> <del>Primary Schools – 211</del> <del>Secondary Schools – 57</del> <del>(12,964 education visitors)</del> <b>Reduced to reflect current situation</b></p> <p>One new programme implemented</p> <p><del>45,023 visitors (excluding education)</del> <b>Reduced to reflect current situation</b> <del>Increase income by 10% to</del> <del>£326,000</del></p> <p><del>10 school events</del> 4 <del>1</del> promotional events New Science at home KPI</p>



Corporate Plan Pillar: Leadership and Governance

Purpose: Ensure fit for purpose governance and support services are in place to support the delivery of organisational objectives			
Outcome Delivery Plan Contribution	2020-21 Objective	Key Activities	Reporting arrangements
Enablers to support sound accountability and governance in the delivery of ODP objectives	<p>Governance: By March 2021 to have agreed and implemented a partnership agreement between DfC and AOP.</p> <p>Develop other partnerships which allow AOP to maximise on its Charity status to ensure the future sustainability of AOP within a shrinking public purse</p> <p>By March 2021 to have developed and agreed a new Corporate Strategy and Plan for 2021–2026</p>	<p>Partnership Agreement with DfC in place</p> <p>Succession planning for Board and Management Committee appointments</p> <p>Management Committee and sub-committees effectiveness review</p> <p>Engagement and agreement with DfC sponsor branch</p> <p>Develop in tandem with Outline Business Case</p> <p>Management Committee and staff engagement</p> <p>Community consultation including young people</p>	<p>Management Committee and Board of Governors</p> <p>Accountability Meetings and regular engagement with sponsor branch</p> <p>SMT</p>
	Maintain fit for purpose Financial Policies and Systems and accountability	<p>Budget setting and monitoring</p> <p>Capital planning</p> <p>STFC and other grant funding applications, reporting and monitoring</p> <p>External and Internal Audit</p> <p>Prompt Payment Targets</p>	<p>Monthly Finance SMT</p> <p>3 year resource and 4 year capital forward planning</p> <p>Bi-monthly meeting with IPDSU on delivery of capital programme</p> <p>Audit and Risk Assurance Committee (ARAC)/ Management Committee</p>

	Proactively manage communication and messaging to support the delivery of objectives	<p>Maintain website, blog and social media</p> <p>PR support contract</p> <p>Marketing resources for key events and programmes</p> <p>Stakeholder management and key messaging in respect of future development project</p>	<p>Delegated responsibility and accountability through line management including budget monitoring and value for money review</p> <p>SMT oversight</p> <p>Development Committee/SMT</p>
	Maintain fit for purpose ICT support and arrangements for managing and maintaining specialised systems and instrumentation	<p>Developing strategy including planned upgrade and renewal programmes</p> <p>Identify and resource additional support for Linux systems</p> <p>Identify and resource additional support for maintaining scientific instrumentation</p> <p>Training and support in use of new systems such as Kramer, AR/VR and Planetarium Projectors</p> <p>ICT Primer</p>	<p>Monthly Corporate Team Meeting</p> <p>Monthly ICT Meetings</p> <p>SMT</p> <p>Team Meetings</p>
	Attract, retain and support talented people focused on delivery of AOP Objectives and values	<p>Year 3 HR Strategy and Action Plan including structure and resourcing to achieve objectives</p> <p>Annual Employee engagement survey</p>	<p>Staffing Policy and Remuneration Committee (SPRC)</p> <p>SMT</p>

New Corporate Plan Pillar: Realising the AOP Vision

<b>Project Vision: Wisdom begins with Wonder – inspiring the next generation by science</b>			
Outcome Delivery Plan Contribution	2020-21 Objective	Key Activities	Key Performance Indicators
<p>Outcome 2: We live and work sustainably – protecting the environment</p> <p>Outcome 5: We are an innovative, creative society where people can fulfil their potential</p> <p>Outcome 6: We have more people working in better jobs</p> <p>Outcome 9: We are a shared, welcoming and confident society that respects diversity</p> <p>Outcome 10: We have created a place where people want to live and work, to visit and invest</p>	<p><del>By March 2021 to complete an OBC to support future vision to include potential revenue generating activities and alternative funding sources</del></p> <p><b>By March 2021 to have secured commitment and resources to develop an OBC in 2021/22</b></p>	<p><del>Appoint a project manager to support delivery</del></p> <p>Engagement with key stakeholders</p> <p><del>Procure key commissions and reports to inform OBC development</del></p> <p>Participate in Mullinure Land Development Forum</p> <p>Identify key funding sources and develop applications</p> <p>Develop an over-arching Vision and narrative</p> <p><b>Review and update SOC to validate it is still viable</b></p>	<p><del>OBC completed by 31.03.21</del></p> <p><b>Complete a programme of engagement activities with key stakeholders</b></p>

## 5. Total AOP Resource Budget 2020-21

	<u>Original</u>	<u>Revised</u>
<b>INCOME</b>		
Sponsor Department Resource Grant-in-Aid	£1,729,000	£1,729,000
Net trading profit/(loss) (gross income less costs)	£150,360	-£4,052
Other income (non-research grants, rents, etc)	£92,489	£13,870
<b>Total Income / Grant-in-Aid</b>	<b>£1,971,849</b>	<b>£1,738,818</b>
<b>DIRECT COSTS</b>		
Salaries (Academic & Education)	£861,654	£836,389
Student costs	£75,228	£73,510
Library & conservation	£15,120	£15,094
Travel, meetings, conference & visitor costs	£120,050	£39,366
Technical consumables, minor technical equipment	£12,000	£16,391
Other research costs	£17,100	£12,400
	<b>£1,101,152</b>	<b>£993,150</b>
<b>GOVERNANCE COSTS</b>		
Management committee costs	£3,000	£2,250
Audit	£31,520	£29,346
Professional & legal fees	£10,800	£44,898
Recruitment & training	£14,540	£8,990
	<b>£59,860</b>	<b>£85,484</b>
<b>ADMINISTRATION &amp; SUPPORT COSTS</b>		
Salaries (management, finance & admin)	£617,651	£641,967
Heat, light, insurance & rates	£93,130	£86,365
Buildings, grounds & property maintenance	£138,880	£131,123
Postage, stationery, telephony & printing	£43,040	£40,889
Other expenses	£8,520	£5,559
	<b>£901,221</b>	<b>£905,903</b>
<b>LESS</b>		
Overheads subsidised by external grants	-£90,384	-£136,564
<b>TOTAL EXPENDITURE</b>	<b>£1,971,849</b>	<b>£1,847,973</b>
<b>SURPLUS / (DEFICIT)</b>	<b>£0</b>	<b>-£109,155</b>

External grant income from scientific organisations	£319,767	£376,454
Expenditure funded by external grants		
Salaries	£136,063	£121,684
Student costs	£61,759	£56,345
Travel, meetings & visitor costs	£30,000	£25,821
Technical equipment and consumables	£960	£640
Other costs	£600	£35,400
Overheads funded by external grants	£90,384	£136,564
	<b>£319,767</b>	<b>£376,454</b>

Note: The table above shows research grants received from external scientific organisations for specific projects which are accounted for independently of DfC resource funding. These include a contribution (£90,384) towards organisation overheads.